

# **WORKING DOCUMENT<sup>1</sup>**

## **RTO West Stage 2 Regional Representatives Group**

### **Congestion Management Content Group Flow-Distribution Congestion Management Recommendation June 1, 2001 Revised Based Upon RRG Comments**

In response to the RRG's direction that the Congestion Management Content Group ("CMCG") simplify and "fix" the Stage 1 Congestion Management Model, there has been a lot of hard work and creative thinking. In particular, the group focused on the threshold question of whether the model should be based upon contract-path rights or flow-distributed rights. The CMCG recommends, contingent upon the satisfactory resolution of a number of remaining issues, that the model be based upon flow-distributed rights within the following framework.

#### **Basic Approach<sup>2</sup>**

The RTO will create transmission rights for flow paths that have commercially-significant congestion.

A Scheduling Coordinator ("SC") is required to submit certain Firm Transmission Rights ("FTR") with its day-ahead balanced schedule. The FTRs that are associated with an SC's schedule (and therefore may be needed for scheduling purposes) are determined by applying RTO established and published Flow Distribution Factors ("FDF") to the SC's balanced schedules (injections and withdrawals). An SC's schedule will likely flow over a number of flow paths.

An SC does not need to submit FTRs on those associated flow paths that fall below a Forgiveness Threshold (discussed below). The SC is not directly responsible for any financial costs incurred by the RTO to arrange for this portion of an SC's schedule. An SC may, but is not required to, submit FTRs on those associated flow paths that fall below a Scheduling Threshold (discussed below). To the extent an SC has opted not to

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<sup>1</sup> This Working Document was drafted by the Coordinating Team and incorporates comments received from the Congestion Management Content Group ("CMCG") as of Thursday, May 31<sup>st</sup>. The CMCG has not had an opportunity to review and comment on this version.

<sup>2</sup> A number of parties' support for this approach is predicated on the understanding that "reasonable comparability" will be achieved in translation of pre-existing contract rights and load service obligations to Firm Transmission Rights (although it should be noted that "reasonable comparability" is required for any of the models and that the translation process, while achievable, is expected to be difficult). In addition, a number of parties' support for this approach is conditioned on the resolution of market power and market liquidity issues.

submit FTRs below the Scheduling Threshold, it is financially responsible for the actions of the RTO in procuring needed FTRs or taking other actions to clear the congestion related to the “uncovered” portion of the schedule

## **A. Scheduling**

### **1. Inter-zonal Scheduling (Scheduling Between Congestion Zones)**

#### **a) Forgiveness Threshold Concept<sup>3</sup>**

An SC is not required to submit FTRs associated with its schedule for paths that fall below the Forgiveness Threshold. The Forgiveness Threshold could have two components: (1) “W”% of the SC’s balanced schedules (“W”% of the transmission usage on FTR paths associated with the SCs’ injections and withdrawals)<sup>4</sup> and (2) “X”% of the path rating. The Forgiveness Threshold is exceeded if either component is exceeded. For discussion purposes, “W” is assumed to be somewhere in the 2%-10% range

#### **b) Scheduling Threshold Concept<sup>5</sup>**

An SC can opt to have the RTO procure rights on behalf of the SC with respect to FTRs that are associated with its schedule for flow paths that exceed the Forgiveness Threshold but are below the Scheduling Threshold (“Between Threshold FTRs”).

The Scheduling Threshold could have two components: (1) “Y”% of the SC’s balanced schedule (“Y”% of the transmission usage on FTR paths associated with the net of all injections/withdrawals) and (2) “Z”% of the path rating. The Scheduling Threshold is exceeded if either component is exceeded. For discussion purposes, “Y” is assumed to be in the 20% range.

An SC opts to have the RTO act on its behalf by not submitting all or a portion of Between Threshold FTRs provided the SC remains responsible for the costs incurred by the RTO in procuring the Between Threshold FTRs on its behalf or in the RTO’s other actions to manage the congestion related to the uncovered portion of the SC’s schedule.

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<sup>3</sup> In order to illustrate the concept of the Forgiveness Threshold, this paper contains examples of Forgiveness Threshold percentages and how the Forgiveness Threshold might be applied. These examples are illustrative, and the CMCG will need further analysis, discussion, and consideration of a number of factors before the specifics of the Forgiveness Threshold can be finalized.

<sup>4</sup> The issue of whether an SC may or is required to net its schedules is still open.

<sup>5</sup> In order to illustrate the concept of the Scheduling Threshold, this paper contains examples of Scheduling Threshold percentages and how the Scheduling Threshold might be applied. These examples are illustrative, and the CMCG will need further analysis, discussion, and consideration of a number of factors before the specifics of the Forgiveness Threshold can be finalized.

An SC must submit all of the FTRs that are required on paths associated with its schedule that exceed the Scheduling Threshold (for example, if there are 15 MWs of FTRs on a path associated with an SC's schedule and the Scheduling Threshold on that path is 14 MW, the SC is required to submit all 15 MWs of FTRs).

## **2. Intra-zonal Scheduling (Scheduling Within a Congestion Zone)**

An SC is not required to submit FTRs for uses within a congestion zone (when the SC's schedule's point of injection and point of withdrawal are within the same zone).

### **B. Translation of Pre-existing Contracts and Load Service Obligations into FTRs**

Entities that have pre-existing contracts and load service obligations will be allocated FTRs as described in the Transmission Operating Agreement. During the allocation process, each such entity shall be allocated the FTRs that it would be required to provide to the RTO if it were its own SC. FTRs that fall below the Forgiveness Threshold will be allocated to each such entity and retained for it by the RTO (consistent with paragraph C., below); these FTRs shall be released to each such entity if and when the Forgiveness Threshold is changed. Between Threshold FTRs will be allocated to the rights holder.

### **C. RTO Release of FTRs Below the Forgiveness Threshold**

Initially, the RTO will not release the FTRs below the Forgiveness Threshold into the market as these FTRs are in effect "used". The RTO will have the discretion in its ongoing role of managing congested paths to determine whether it is appropriate to release these FTRs, and, if so, will develop a process to release such FTRs into the market on an annual, monthly, weekly, and daily basis based upon path capability and historic path inter-zonal congestion costs. The revenue from such sales will be used by the RTO to offset its costs incurred in managing inter-zonal congestion, which costs shall be allocated as discussed below.

### **D. RTO Role In Managing Inter-zonal Congestion**

An underlying assumption of this model is that the cost incurred by the RTO to manage inter-zonal congestion resulting from the difference between the commercial model and actual operation will be relatively small and evenly distributed across the RTO grid.

In order to limit the amount of uplift that is spread to RTO schedules, if the RTO's costs to resolve inter-zonal congestion are larger than a pre-determined level, the RTO must take action to reduce congestion costs. This will happen either when (i) the RTO's costs to address total system inter-zonal congestion exceeds a specified level or (ii) the RTO's cost to address inter-zonal congestion on one path becomes disproportionately large. These "triggers" have not yet been developed, but examples of possible triggers follow.

#### **1. Total System Cost Trigger**

This trigger could be expressed in terms of total inter-zonal costs incurred over a period of “M” months (inflation adjusted if desired) (for example, \$“B” million or “C”% of the average RTO transmission charge). For discussion purposes, “C” is assumed to be 2-5% of the average annual company rate and “M” is 12 months.

## **2. Path Specific Trigger**

This trigger could be expressed in terms of “S”% of the average cost of inter-zonal congestion for all paths with inter-zonal congestion during the period covered by the calculation (for example, yearly). All calculations would be normalized on a per megawatt basis using the path capability used by the RTO for FTR release purposes.

For example, if “S” were 200%, a path would exceed this trigger if its annual inter-zonal congestion costs expressed on a \$/MW basis is twice the average residual cost of all other constrained paths (also expressed on a \$/MW basis). For paths that exceed this trigger, the RTO could make changes to bring the residual congestion costs to a more proportionate level on this path.

Alternatively this trigger level could be expressed as a percentage of the revenue requirement (or a proxy) of the path facilities or a combination of both. If expressed as a percentage of the path facilities, the trigger could be expressed as “J” percentage of the annual applicable company rate. For discussion purposes, “J” is assumed to be 5% of the annual applicable company rate.

## **E. RTO Options To Control Its Costs of Inter-zonal Congestion**

Where one (or more) inter-zonal congestion cost trigger level has been exceeded, the RTO must consider taking action to reduce congestion costs. For example, the RTO could:

- i) Revise the manner in which FTRs are released;
- ii) Revise the thresholds associated with one or more paths;
- iii) Use other means to reduce cost (e.g., forward contracts for Inc/Dec options);
- iv) Make fundamental changes to the congestion management model; and
- v) Explore the possibility of having a sponsor “fix” congestion through construction or construction alternatives.<sup>6</sup>

The above list of options is not all-inclusive.

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<sup>6</sup> One of the underlying assumptions is that the RTO can change the model provided that Day One FTRs that were allocated to cover pre-existing contracts and load service obligations will be retranslated as necessary to continue to provide “reasonable comparability”.

## **F. RTO Action Related to Costs of Intra-zonal Congestion**

The RTO will consider creating new flow paths when the costs of intra-zonal congestion become commercially significant or take other appropriate action

## **G. Allocation of Inter-zonal and Intra-zonal Congestion Costs**

Costs incurred by the RTO to manage congestion will initially be separated into those incurred for inter-zonal congestion and those incurred for intra-zonal congestion. A portion of the inter-zonal costs will be assigned directly to the SCs who did not supply all of the Between Threshold FTRs. The remaining inter-zonal costs are then combined with the intra-zonal costs. The RTO will allocate these costs (with one exception) on a MW-hr basis to all schedules.<sup>7</sup> The exception applies to the allocation of intra-zonal costs, and can be expressed as the following general principle. To the extent Transmission Customers currently pay for intra-zonal congestion under pre-Order No. 888 contracts that are converted, those customers should not be required to pay a second time for the cost of the RTO's actions in clearing intra-zonal congestion. (This could take the form of a credit to the transfer payment obligation of a customer for such pre-existing contracts to reflect that it paid the RTO uplift relating to intra-zonal congestion or some other agreed-to mechanism.)

## **H. Open Issues**

Treatment of outages/operational changes  
Netting (or how to make sure all TTC is accessible)  
Threshold percentages  
Trigger specifics (including when RTO could take corrective action)  
More discussion regarding exception to uplift for intra-zonal congestion costs  
Compatibility of the recommendation and the Stage 1 Pricing Model  
Liquidity  
Number of flow paths  
Criteria for creating and eliminating flowpaths  
Expansion  
Treatment of over-subscription of capability (before and after formation of RTO)  
Development of a workable transmission market  
Mitigation of potential market power  
Mechanics of auction and release of FTRs  
Translation of existing rights  
Treatment of non-converted contracts  
RTO actions to address other congestion  
Further discussion regarding revenue from below Forgiveness Threshold FTRs

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<sup>7</sup> This approach relates only to this component of the RTO's uplift, and the RTO has the discretion to determine how to handle the collection of the other components of its uplift, including who will be required to pay.

Possibility of having SC's with "uncovered" schedules be financially responsible for costs to clear congestion below Forgiveness Threshold as well as for Between Threshold FTRs  
Settlement details